

Gail Zlotky

De-Icing History and an underappreciated science



Ropes (1910's and 1920's)



Mop and Bucket (1920's-1940's)



Kilfrost Paste (1940's-1960's)



Trucks (1960's - Present)



Multi Truck Deicing



Infrared Deicing



A dark grey arrow points to the right from the left edge of the slide. Several thin, curved lines in shades of blue and grey originate from the left side and sweep across the slide towards the right.

Fluids

- There are four types of fluids
 - Type I
 - Type II
 - Type III (not used in the US)
 - Type IV
 - Testing certification
 - Certification



Ice Cameras

- ▶ Very few on the market
- ▶ Major issues
 - ▶ unable to completely detect ice accurately
 - ▶ Need additional light for night operations



Training

Usually done in the summer

- Volunteers
- Ramp staff
- Baggage handlers
- Long delay till first event



Hand Checking

- ▶ All this technology and still required to hand check for frost and or ice
- ▶ A ladder must be put against the plane and a hand or a stick used to check for ice



WEATHER

- ▶ METARS used for weather information
- ▶ Code – not usually taught
- ▶ Definition of snow freezing rain, UP, etc.
- ▶ Not taught or not known
- ▶ How do you plan to deice when you don't know what the precip is?
- ▶ The only communication is from the deicer to the pilot
- ▶ Dispatch out of the loop
- ▶ ATC limited information
- ▶ No one is watching the process
- ▶ Airport limitations



The Future and Technology

- ▶ All this technology and still having issues.
- ▶ Where to we go from here
 - ▶ Build a camera that will work
 - ▶ connect camera to a data base that can ID aircraft and verify that it is configured correctly
 - ▶ Cameras take before and after deicing procedure
 - ▶ Station as close to runway as legal
 - ▶ Eliminate voiding of hold over time

The Future

